AMENDMENTS TO THE CLAIMS

In the set of claims within the Application, please retain, amend, or cancel each claim as hereinafter indicated.

1. (Currently Amended) A safety system ~~for a vehicle~~ as in claim 15, said safety system further comprising:

an occupant sensor located onboard said vehicle and operable to generate an occupant characteristic signal;

~~a plurality of discretized patch sensors coupled to a peripheral area of said vehicle and operable to generate at least one collision detection signal; and~~

~~a controller coupled to said occupant sensor and said plurality of discretized patch sensors;~~

wherein said controller is coupled to said occupant sensor and operable to determine an occupant status in response to said occupant characteristic signal[[,]] ~~determine a collision type in response to said at least one collision detection signal~~[[,]] and also perform at least one countermeasure in response to both said occupant status and said collision type.

2. (Currently Amended) A safety system as in claim [[1]] 15, wherein said plurality of collision detection sensors includes discretized patch sensors that are at least partially formed of a poly-vinylidine fluoride material.

3. (Currently Amended) A safety system as in claim [[1]] 15, wherein said plurality of collision detection sensors includes discretized patch sensors that are in a composite form.

4. (Currently Amended) A safety system as in claim [[1]] 15, wherein said plurality of ~~discretized patch~~ collision detection sensors are coupled to a bumper of said vehicle.

5. (Canceled)

6. (Canceled)

7. (Currently Amended) A safety system as in claim [[5]] 10, wherein said collision contact location estimator is operable to determine said collision contact location relative to said plurality of discretized patch sensors in response to values selected from at least one of a plurality of location threshold values, time synchronized comparative magnitude values, and signature values of the collision detection signals.

8. (Currently Amended) A safety system as in claim [[5]] 10, wherein said collision contact location estimator is operable to determine said collision contact location relative to said plurality of discretized patch sensors in response to at least one collision confirmation threshold value.

9. (Currently Amended) A safety system ~~for a vehicle~~ as in claim 15, said safety system further comprising:

an occupant sensor located onboard said vehicle and operable to generate an occupant characteristic signal;

~~a plurality of collision detection sensors coupled to the periphery of said vehicle and operable to generate at least one collision detection signal; and~~

wherein [[a]] said controller is coupled to said occupant sensor, and said ~~plurality of collision detection sensors and comprising (i) a collision contact location estimator for determining a collision type, which includes determining a collision severity and a collision contact location on said vehicle, in response to said at least one collision detection signal, and (ii) a~~ coordinated device activation system ~~for performing~~ is operable to perform at least one countermeasure in response to both said occupant characteristic signal and said collision type.

10. (Currently Amended) A safety system as in claim [[9]] 15, wherein said plurality of collision detection sensors are in the form of a plurality of discretized patch sensors.

11. (Currently Amended) A safety system as in claim [[9]] 15, wherein said plurality of collision detection sensors are at least partially formed of a poly-vinylidine fluoride material.

12. (Currently Amended) A safety system as in claim [[10]] 15, wherein said plurality of ~~discretized patch~~ collision detection sensors are in a composite form.

13. (Currently Amended) A safety system as in claim [[9]] 15, wherein said plurality of collision detection sensors are non-accelerometer type sensors.

14. (Canceled)

15. (Previously Presented) A safety system for a vehicle, said safety system comprising:

a plurality of collision detection sensors coupled to the periphery of said vehicle and operable to generate at least one collision detection signal; and

a controller coupled to said plurality of collision detection sensors and comprising (i) a collision contact location estimator for determining a collision type, which includes determining a collision severity and a collision contact location on said vehicle, in response to said at least one collision detection signal, and (ii) a coordinated device activation system for performing at least one countermeasure in response to said collision type;

wherein said collision contact location estimator, in determining said collision severity, is operable to generate at least one collision severity signal corresponding to

approximately $K_i V_i (1 - e^{-\tau t})$, in which V_i is voltage output from the i^{th} collision detection sensor, K_i is an adaptive gain, and τ is an adjustable filter time-constant.

16. (Currently Amended) A safety system as in claim [[9]] 15, wherein said collision contact location estimator is operable to determine said collision contact location relative to said plurality of collision detection sensors in response to values selected from at least one of a plurality of location threshold values, time synchronized comparative magnitude values, and signature values of the collision detection signals.

17. (Currently Amended) A safety system as in claim [[9]] 15, wherein said collision contact location estimator is operable to determine said collision contact location relative to said plurality of collision detection sensors in response to at least one collision confirmation threshold value.

18. (Previously Presented) A safety system as in claim 17, wherein said coordinated device activation system is operable to perform said at least one countermeasure based on the contacted area of said vehicle when said collision confirmation threshold value is exceeded.

19. (Canceled)

20. (Canceled)